Lab Assignment

Cybersecurity Professional Program

Introduction to Python
for Security

Loops

PY-03-L3
Loops with Conditions

Lab Objective

Understand different ways to work with ***while*** loops to control the program flow.

Lab Mission

Practice creating code using ***while*** loops and conditions.

Lab Duration

10–20 minutes

Requirements

- Basic knowledge of loops and conditions

Resources

- Environment and tools
    - Windows, Linux, MacOS
        - Python 3
        - PyCharm

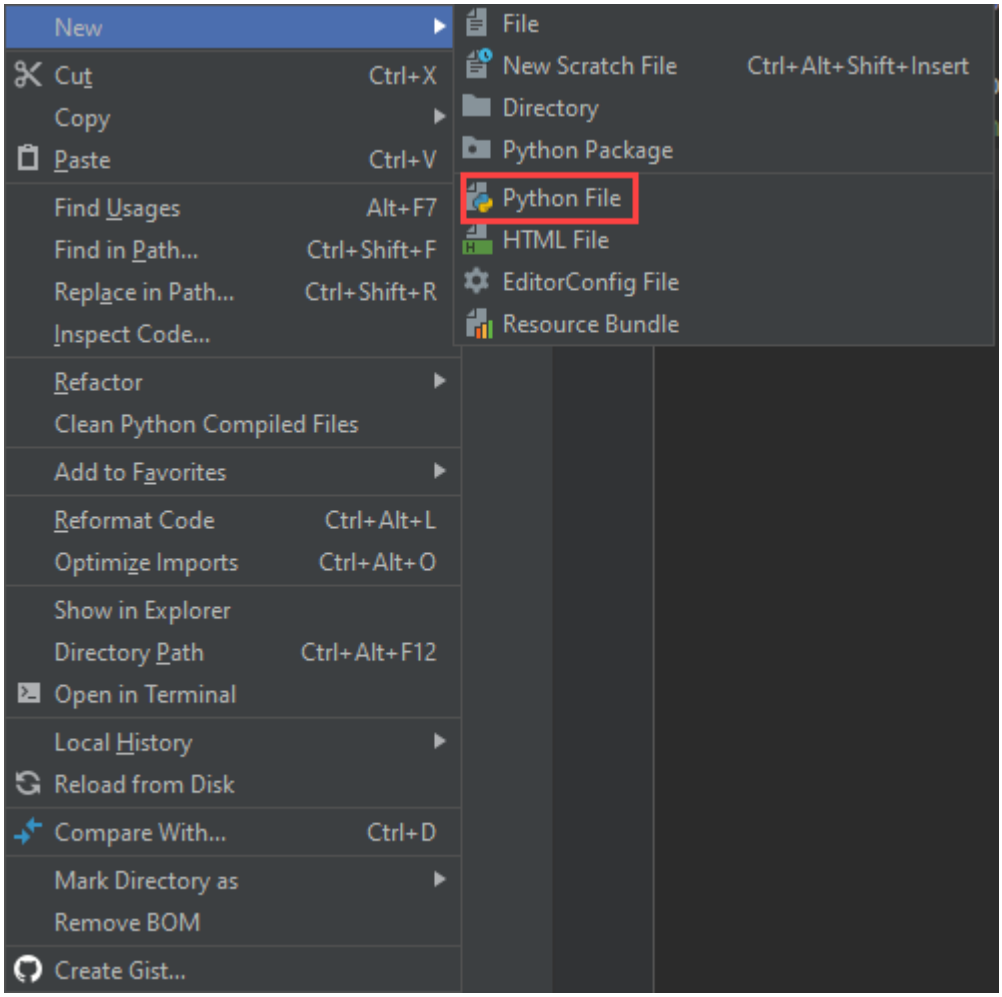
Textbook References

- Chapter 3: Loops
    - Section 1: For & While

Lab Task: *While* Loops & Conditions

In this lab task, you will continue to practice how to work with ***while*** loops and conditions, such as ***if-else***, in loops.

1 Create a new Python file in PyCharm.
Right-click the project you created previously, and select **New → *Python File***.



2 Create a variable to be used as a counter and set its value to zero, since it will be the counter's starting point.

```
counter = 0
```

3 Create a ***while*** loop with a condition that checks if the counter's value is less than 10.

```
counter = 0

while counter < 10:
```

4 In the loop, add +1 to the counter with each iteration.

```
counter = 0

while counter < 10:
    counter += 1
```

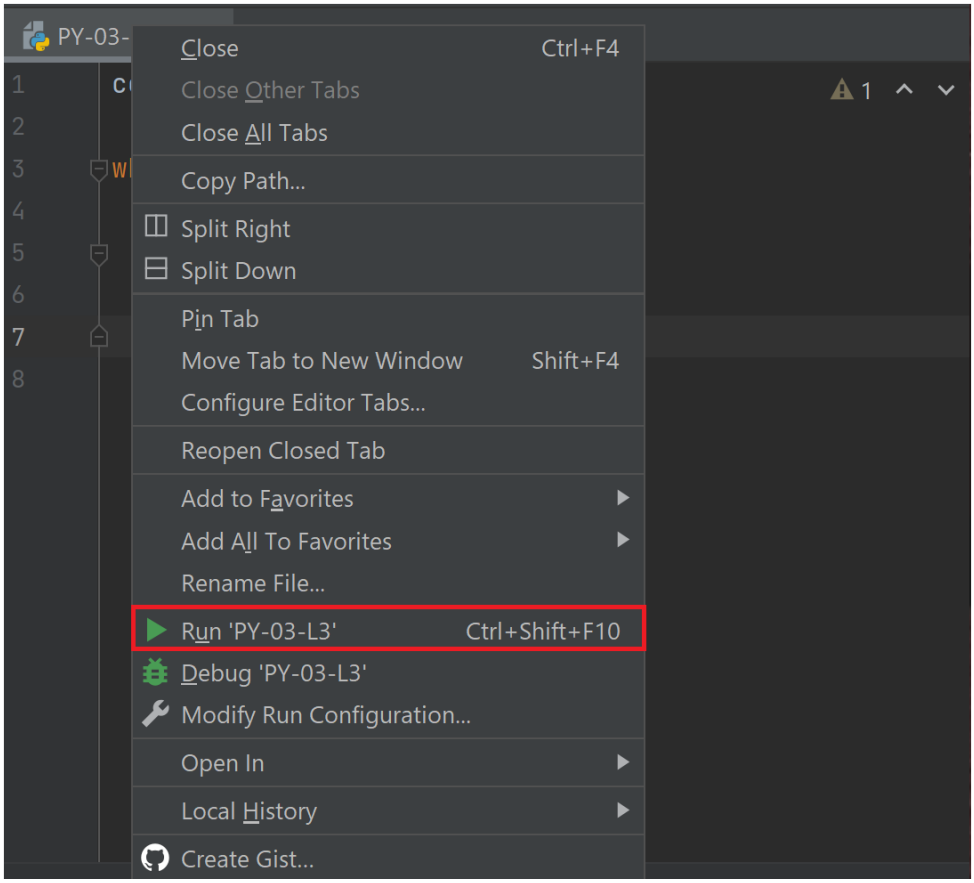
5 Create an ***if*** statement that checks if the counter equals 6.

```
counter = 0

while counter < 10:
    counter += 1
    if counter == 6:
```

6 If the counter equals 6, print "Found!" and exit the ***while*** loop.

```
counter = 0

while counter < 10:
      counter += 1
      if counter == 6:
            print("Found!")
            break
```

7 Right-click the file of the lab and execute the ***Run 'File name'***.



8 The result of the following program should appear.

```
Found!

Process finished with exit code 0
```

9 If the counter does not equal 6, use an ***else*** statement to print “Check” and the current value.

```
counter = 0

while counter < 10:
    counter += 1
    if counter == 6:
        print("Found!")
        break
    else:
        print("Check {}".format(counter))
```